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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------------|---------------------------------|------------------------|
| 10/647,540 | 08/26/2003 | Milind R. Naphade | YOR920030316US1 | 2284 |
| 21254 7590 02/20/2008 MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817 | | | EXAMINER LIEW, ALEX KOK SOON | |
| | | | ART UNIT 2624 | PAPER NUMBER |
| | | | MAIL DATE 02/20/2008 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/647,540

Applicant(s)

NAPHADE ET AL.

Examiner

Alex Liew

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-13 and 15-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-13 and 15-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

1. The applicant's appeal brief filed on 12/3/07 is entered and made of record.
2. The examiner considered the arguments made by the appellant and were convincing; the examiner will withdrawn rejections (Ishikawa) made on May 7, 2007 and will reopen current application. The examiner found Nicholas (US pat no 5,999,649) to read on the limitations of claim 1; details discussed below.
3. On page 15, line 14 of the current application: the context of 'propagation' is read as 'assignment' of object in a series of image frames.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Nicholas (US pat no 5,999,649).

With regards to claim 1, Nicholas reads on a descriptor propagation system (figure 2 shows the system of the descriptor propagation system) comprising:

a descriptor acceptance device (see column 11, lines 54 to 57, the microprocessor assigns the character type to the raw character data in the bitmap image; the buffer memory where the bitmap image is store is the acceptance device,

figure 2, element 14) that accepts a first descriptor associated with a first content granularity (see figure 7, step 128, where a character in the bitmap image document is assign a 'label list,' a list of candidate list of characters for recognized character); and a descriptor propagation device (figure 2, element 36) that propagates the first descriptor to a second content granularity that is finer than the first content granularity (figure 5a, the character hierarchy is read as the first content granularity, the word hierarchy is read as the second hierarchy; see column 12, lines 43 to 56, to recognize word in the bitmap image, each character in the word must be recognize), and wherein the descriptor propagation device propagates the first descriptor without prior data regarding the first descriptor at the second granularity (see figure 7, each character in the bit map image does not require the system to recognize the word first, to recognize each character in the bitmap image).

With regards to claim 3, Nicholas reads on a repository that stores the first descriptor associated with the first content granularity (see column 7, lines 19 to 29, once the character is recognized its ASCII code is stored; ASCII are code which defines a character).

With regards to claim 8, see the rationale and rejection for claim 1.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2, 4, 6, 7, 9, 10 – 13 and 15 – 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nicholas ('236) as applied to claim 1 further in view of Sakoe ('649).

With regards to claim 2, Nicholas discloses all the limitation of claim 1; Nicholas reads on descriptor propagation device generates a propagation recognizer based upon the first descriptor and the first content granularity (see column 11, lines 58 to 62) and the descriptor propagation device propagates the first descriptor based upon the propagation recognizer and the first descriptor (see figure 7, step 128), but Nicholas does not explicitly discuss a propagation function. Sakoe discloses propagation function (see column 4, lines 26 to 37). One skilled in the art would include a propagation function because to find the pattern in the database best matches the input pattern, which results in accurate matching.

With regards to claim 4, see the rationale and rejection for claim 2.

With regards to claim 6, Nicholas reads on a descriptor mapping device that generates another mapping function based upon the first descriptor and the first content

granularity, and that stores the second recognizer in the information repository (see figure 7, step 128, the recognizer is use more than one time, the second recognizer is the recognizer use to recognize the second character in the bit map image). Sakoe discloses the propagation function (see figure 5, element 36). See motivation for claim 2.

With regards to claim 7, see the rationale and rejection for claim 3.

With regards to claim 9, see the rationale and rejection for claim 2.

With regards to claim 10, Nicholas reads on a method for propagating descriptors, comprising:

- analyzing a first content at a first content granularity to determine a propagation recognizer that correlates a first descriptor provided for the first content to a second granularity that is finer than the first content granularity (see figure 7, step 128, performs recognition process on a selected character); and

- propagating the first descriptor to the second content granularity without prior data regarding the first descriptor at the second content granularity (see figure 7, each character in the bit map image does not require the system to recognize the word first, to recognize each character in the bitmap image).

Nicholas does not explicitly discuss a propagation function. Sakoe discloses propagation function (see column 4, lines 26 to 37). One skilled in the art would include

a propagation function because to find the pattern in the database best matches the input pattern, which results in accurate matching.

With regards to claim 11, Nicholas reads on extracting features from the first content (see figure 5b, characters and words are extracted). Sakoe discloses the propagating function.

With regards to claims 12 and 16, see the rationale and rejection for claim 10.

With regards to claim 13, see the rationale and rejection for claim 3.

With regards to claim 15, see the rationale and rejection for claim 6.

With regards to claim 17, see the rationale and rejection for claim 10. In addition, Nicholas discloses program codes embedded in a storage medium, which performs descriptor acceptance device and propagating device (see figure 2, element 36 is where program code is run and element 22 is where the instruction is stored).

With regards to claim 18, see the rationale and rejection for claim 10.

With regards to claim 19, Nicholas reads on second descriptor is different than the first descriptor and is stored in an information repository (see figure 5c, the word 'units' has different characters with its neighbors).

With regards to claim 20, see the rationale and rejection for claim 10. In addition, Nicholas discloses program codes embedded in a storage medium, which performs descriptor acceptance device and propagating device (see figure 2, element 36 is where program code is run and element 22 is where the instruction is stored).

With regards to claims 21 – 23, see the rationale and rejection for claim 1. In addition, Nicholas discloses program codes embedded in a storage medium, which performs descriptor acceptance device and propagating device (see figure 2, element 36 is where program code is run and element 22 is where the instruction is stored).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex Liew whose telephone number is (571)272-8623. The examiner can normally be reached on 9:30AM - 7:00PM.

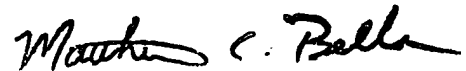
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alex Liew
AU2624
2/3/08

A handwritten signature in black ink, appearing to read "Matthew C. Bella".

MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600